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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,576	06/18/2001	Mark D. Goddard	2071	7269

30408 7590 08/03/2004

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EXAMINER

LE, DIEU MINH T

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 08/03/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/883,576

Applicant(s)

GODDARD, MARK D. 

Examiner

Dieu-Minh Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/20/01.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to the communication filed on 08/20/01 in application 09/883,576.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable Engquist (US Patent 5,802,297) in view of Harris et al (US Publication Number 20010047482A1 hereafter referred to as Harris).

As per claim 1:

Engquist substantially teaches the invention. Engquist teaches:

- a system suitable for providing a backup of electronic data [abstract, fig. 2, col. 1, lines 5-13];

comprising:

- a network [col. 4, line 61];
- a server appliance coupled to the network, the server appliance including a data storage device suitable for storage of electronic data [col. 4, lines 53-65, col. 5, lines 10-15, and col. 9, lines 21-31];
- a plurality of client information handling systems coupled to the server appliance over the network, each client information handling system including a data storage device suitable for storage of the electronic data stored on the server appliance, wherein portions [col. 9, lines 62 through col. 10, lines 3] of the electronic data stored on the server appliance are transferred over the network [col. 4, line 61] and stored on the plurality of client information handling systems [col. 5, lines 10-15].

Engquist does not explicitly teach:

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- restoring the electronic data stored on the server appliance.

However, Engquist does disclose capability of:

- client-server computer system and method utilizing a local client disk drive as a data cache[abstract, col. 9, lines 20-35] comprising;
- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- A method and system for managing storage resources associated with a network having storage resource coupled to server and at least one client [abstract, col. 1, par. 0001] comprising:
 - data management portion is responsible for managing the physical data storage devices including client computer and computer physical device [col. 6, par. 003];
 - the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having data management portion for backup and restore data capability in conjunction with the Engquist's client-server computer system to enhance data backup and restoration among server and plurality of client in maximizing the data access time among client/server back up environment.

One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to improve data availability and integrity. That is by utilizing this approach, first, any error or failure occurred in the client/server system can be identified, detected, corrected via the portion of data stored at plurality of clients for server backup and restoration.

As per claims 2-4:

Engquist further teaches the invention.

- if at least one of the plurality of client information handling system is unavailable and includes one of the portion of the electronics data [col. 5, lines 62-65].

Engquist does not explicitly teaches:

- parity data for correcting error.

However, engquist does disclose capability of:

- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- data recovery and data backup using a pseudo-device [col. 2, par. 009];
- implementing parity information for data recovery process [col. 3, par. 0027 and 0029].
- the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having **parity information**

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for data recovery process capability in conjunction with the Engquist's client-server computer system to support the data correction and recovery process among server and plurality of client in ensuring the computer system via a network performing uninterruptedly.

One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to correct data and improve server reliability purpose.

As per claim 5:

Engquist does not explicitly teaches:

- at least one of the portion of the electronics data is stored on at least two of the plurality of client information handling system such that if at least one of the plurality of client information handling system is unavailable and includes one of the portion of the electronics data , the portion of the electronics data stored on other available ones of the plurality of client formation handling system are suitable for restoring.

However, engquist does disclose capability of:

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- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- mirroring portion of the RAID and writing to multiple storage resource for data backup and restoration [col. 3, par. 0029];
- implementing parity information for data recovery process [col. 3, par. 0027 and 0029].
- the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having **mirroring portion of the RAID and writing to multiple storage resource for data backup and restoration** capability in conjunction with the Engquist's client-server computer system to support the data correction and recovery process among server and plurality of

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client in ensuring the computer system via a network performing uninterruptedly.

One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to correct data and improve server reliability purpose.

As per claim 6:

Engquist does disclose capability of:

- client-server computer system and method utilizing a local client disk drive as a data cache[abstract, col. 9, lines 20-35] comprising;
- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- A method and system for managing storage resources associated with a network having storage resource coupled to server and at least one client [abstract, col. 1, par. 0001] comprising:

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- a RAID scheme and computed available of storage on the plurality of client information handling system [col. 3, par. 0027 and 0029].

As per claim 7:

Engquist substantially teaches the invention. Engquist teaches:

- a system suitable for providing a backup of electronic data [abstract, fig. 2, col. 1, lines 5-13];

comprising:

- a network [col. 4, line 61];
- a server appliance coupled to the network, the server appliance including a data storage device suitable for storage of electronic data [col. 4, lines 53-65, col. 5, lines 10-15, and col. 9, lines 21-31];
- a plurality of client information handling systems coupled to the server appliance over the network, each client information handling system including a data storage device suitable for storage of the electronic data stored on the server appliance, wherein portions [col. 9, lines 62 through col. 10, lines 3] of the electronic data stored on the server appliance are transferred over the network

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[col. 4, line 61] and stored on the plurality of client information handling systems [col. 5, lines 10-15].

- if at least one of the plurality of client information handling system is unavailable and includes one of the portion of the electronics data [col. 5, lines 62-65].

Engquist does not explicitly teach:

- restoring the electronic data stored on the server appliance.

However, Engquist does disclose capability of:

- client-server computer system and method utilizing a local client disk drive as a data cache[abstract, col. 9, lines 20-35] comprising;

- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];

- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- A method and system for managing storage resources associated with a network having storage resource coupled

to server and at least one client [abstract, col. 1, par.

0001] comprising:

- data management portion is responsible for managing the physical data storage devices including client computer and computer physical device [col. 6, par. 003];
- the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having data management portion for backup and restore data capability in conjunction with the Engquist's client-server computer system to enhance data backup and restoration among server and plurality of client in maximizing the data access time among client/server back up environment.

One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to improve data availability and integrity. That is by utilizing this approach, first, any error or failure occurred in the client/server system can be identified, detected, corrected

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via the portion of data stored at plurality of clients for server backup and restoration.

As per claims 8-10:

Engquist does not explicitly teaches:

- parity data for correcting error.

However, engquist does disclose capability of:

- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- data recovery and data backup using a pseudo-device [col. 2, par. 009];
- implementing parity information for data recovery process [col. 3, par. 0027 and 0029].
- the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having **parity information for data recovery process** capability in conjunction with the Engquist's client-server computer system to support the data correction and recovery process among server and plurality of client in ensuring the computer system via a network performing uninterruptedly.

One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to correct data and improve server reliability purpose.

As per claim 11:

Engquist does not explicitly teaches:

- at least one of the portion of the electronics data is stored on at least two of the plurality of client information handling system.

However, engquist does disclose capability of:

- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];

- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- mirroring portion of the RAID and writing to multiple storage resource for data backup and restoration [col. 3, par. 0029];
- implementing parity information for data recovery process [col. 3, par. 0027 and 0029].
- the data management portion also is responsible for backup and restore data migration from one storage device to another [col. 1, par. 003].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to apply the Harris's method and system for managing storage resources associated with a network having **mirroring portion of the RAID and writing to multiple storage resource for data backup and restoration** capability in conjunction with the Engquist's client-server computer system to support the data correction and recovery process among server and plurality of client in ensuring the computer system via a network performing uninterruptedly.

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One of ordinary skill in the art would have been motivated to do so to provide the client/server data backup and restoration with mechanism to correct data and improve server reliability purpose.

As per claim 12:

Engquist does disclose capability of:

- client-server computer system and method utilizing a local client disk drive as a data cache[abstract, col. 9, lines 20-35] comprising;
- building file system for the cache and swapping [fig. 3, col. 7, lines 1-10];
- creating data, copying data, modifying data, etc... [col. 7, lines 11-17, lines 36-42, and lines 43-57].

In addition, Harris does explicitly disclose capability of:

- A method and system for managing storage resources associated with a network having storage resource coupled to server and at least one client [abstract, col. 1, par. 0001] comprising:
 - a RAID scheme and computed available of storage on the plurality of client information handling system [col. 3, par. 0027 and 0029];

As per claims 13-19:

Due to the similarity of claims 13-19 to claims 1-6 except for a method of providing a backup of electronic data on a server appliance utilizing a plurality of client information handling systems server appliance, plurality of clients, transferring portion of data from server to clients, stored portion of data on client information handling systems, etc... instead of a system for providing a backup of electronic data on a server appliance utilizing a plurality of client information handling systems server appliance, plurality of clients, transferring portion of data from server to clients, stored portion of data on client information handling systems, etc...therefore, these claims are also rejected under the same rationale applied against claims 1-6. In addition, all of the limitations have been noted in the rejection as per claims 1-6.

As per claims 20-25:

Due to the similarity of claims 20-25 to claims 7-12 except for [a method of providing a backup of electronic data on a server appliance utilizing a plurality of client information handling systems server appliance, plurality of clients, transferring portion of data from server to clients, stored

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portion of data on client information handling systems, such as if at least one of the plurality of client information handling system is unavailable... the portion of the electronic data stored on other available ones of the plurality of client information handling systems, etc...] instead of [a system for providing a backup of electronic data on a server appliance utilizing a plurality of client information handling systems server appliance, plurality of clients, transferring portion of data from server to clients, such as if at least one of the plurality of client information handling system is unavailable... the portion of the electronic data stored on other available ones of the plurality of client information handling systems, stored portion of data on client information handling systems, etc...]; therefore, these claims are also rejected under the same rationale applied against claims 7-12. In addition, all of the limitations have been noted in the rejection as per claims 7-12.


Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
4. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703)305-9408. The examiner can normally be reached on Monday - Thursday from 8:30 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703)305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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PRIMARY EXAMINER
ART UNIT 2114